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SLC8 family of sodium/calcium exchangers (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database

Jules Hancox[1]

1. University of Bristol, UK

Abstract

The sodium/calcium exchangers (NCX) use the extracellular sodium concentration to facilitate the extrusion of calcium out of the cell. Alongside the plasma membrane Ca^{2+}-ATPase (PMCA) and sarcoplasmic/endoplasmic reticulum Ca^{2+}-ATPase (SERCA), as well as the sodium/potassium/calcium exchangers (NKCX, SLC24 family), NCX allow recovery of intracellular calcium back to basal levels after cellular stimulation. When intracellular sodium ion levels rise, for example, following depolarisation, these transporters can operate in the reverse direction to allow calcium influx and sodium efflux, as an electrogenic mechanism. Structural modelling suggests the presence of 9 TM segments, with a large intracellular loop between the fifth and sixth TM segments.

Contents

This is a citation summary for SLC8 family of sodium/calcium exchangers in the Guide to Pharmacology database (GtoPdb). It exists purely as an adjunct to the database to facilitate the recognition of citations to and from the database by citation analyzers. Readers will almost certainly want to visit the relevant sections of the database which are given here under database links.

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Please note that the database version for the citations given in GtoPdb are to the most recent preceding version in which the family or its subfamilies and targets were substantially changed. The links below are to the current version. If you need to consult the cited version, rather than the most recent version, please contact the GtoPdb curators.

SLC8 family of sodium/calcium exchangers

http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=180

Transporters

NCX1(Sodium/calcium exchanger 1)

http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=945

NCX2(Sodium/calcium exchanger 2)

http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=946

NCX3(Sodium/calcium exchanger 3)

http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=947

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